IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-38 (Cancelled)

39. (Previously Presented) An apparatus comprising:

a first voice-band switch; and

a database coupled to the first voice-band switch;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call;

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call; and

the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the database being a universal subscriber data structure (USDS) and the first voice-band switch being communicatively linked to an IP gateway.

40. (Previously Presented) The apparatus of claim 39, wherein the first voice-band switch is further configured to open a billing record for the VOIP call.

41. (Previously Presented) The apparatus of claim 39, wherein the first voice-band switch is configured to automatically designate the direct-dialed voice-band call as the VOIP call if the database contains information that the calling party's telephone number is registered for a VOIP service and if a destination number of the direct-dialed voice-band call is accessible by the VOIP service.

42. (Previously Presented) The apparatus of claim 39, wherein the first voice-band switch is further configured to route the VOIP call to an IP gateway for routing to an IP

network, then to a destination IP gateway and then to a local access provider network for routing to a destination number of the direct-dialed voice-band call.

43. (Previously Presented) An apparatus comprising:

a first voice-band switch; and

a database coupled to the first voice-band switch;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call; and

the first voice-band switch being further configured, if the database contains information that the calling party's telephone number is only registered for non-single-stage VOIP services or if the database contains information that the calling party's telephone number is registered for the single-stage VOIP service and the destination number of the direct-dialed voice-band call is inaccessible by the VOIP service, to automatically designate the direct-dialed voice-band call as a circuit-switched call; and to automatically route the direct-dialed voice-band call for routing as a circuit-switched call if the direct-dialed voice-band call is designated as a circuit-switched call.

44. (Previously Presented) The apparatus of claim 39, further comprising:

a provisioning system configured to automatically provision and maintain the network apparatus.

45. (Previously Presented) An apparatus comprising:

a first voice-band switch;

a database coupled to the first voice-band switch; and

a provisioning system configured to automatically provision and maintain the network apparatus;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call; and

the provisioning system Including

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a network provisioning platform (NPP) configured to receive a voice-over-Internet protocol (VOIP) service registration for the calling party, to generate at least one order for the calling party's VOIP service, to store the at least one order for the calling party telephone number's VOIP service, to manage the interaction between a calling party's telephone number and a billed telephone number, and to update a plurality of service records to compensate for numbering plan changes;

a billing system coupled to the NPP, the billing system being configured to maintain at least one calling party's account information, to maintain the VOIP service, and to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC); and

a customer service message system (CSMS) coupled to the NPP, the CSMS being configured to synchronize between the first voice-band switch and the database which is configured to store calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

the NPP being further configured to synchronize changes in the network system and the billing system due to calling party activations, disconnections and changes.

46. (Previously Presented) The apparatus of claim 45, wherein the CSMS is further configured to administer in the database at least one of a country code field, a destination telephone number field, and a destination code field.

47. (Previously Presented) The apparatus of claim 39 further comprising:

a second voice-band switch coupled to the first voice-band switch, wherein the second voice-band switch is configured to receive the automatically routed direct-dialed voice-band call from the first voice-band switch, to forward the direct-dialed voice-band call for transmission as a VOIP call, and to open a billing record for the VOIP call.

48. (Original) The apparatus of claim 47, wherein the first voice-band switch is further configured, if the database contains information that the calling party's telephone number is only registered for non-single-stage VOIP services or if the database contains

information that the calling party's telephone number is registered for the single-stage VOIP service and the destination number of the direct-dialed voice-band call is inaccessible by the VOIP service, to automatically designate the direct-dialed voice-band call as a circuit-switched call; and to automatically route the direct-dialed voice-band call for routing as a circuit-switched call if the direct-dialed voice-band call is designated as a circuit-switched call.

49 (Original) The apparatus of claim 47, wherein the second voice-band switch is further configured to route the direct-dialed call to an IP gateway for routing to an IP network, then to a destination IP gateway and then to a local access provider network for routing to a destination number of the direct-dialed voice-band call.

50. (Previously Presented) An apparatus comprising:

a first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call, and to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call;

a database coupled to the first voice-band switch; and

a second voice-band switch coupled to the first voice-band switch, the second voice-band switch being configured to receive automatically routed direct-dialed voice-band call from the first voice-band switch, to forward the direct-dialed voice-band call for transmission as a VOIP call, and to open a billing record for the VOIP call;

the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the second voice-band switch being an ESS handoff assist switch (HAS), the database being a universal subscriber data structure (USDS) and the second voice-band switch being communicatively linked to an IP gateway.

51. (Original) The apparatus of claim 48, wherein the first voice-band switch is further configured to automatically route the direct-dialed voice-band call as a circuit-switched call if the direct-dialed voice-band call is to be routed as a circuit-switched call.

52. (Original) The apparatus of claim 48, further comprising:

a provisioning system configured to automatically provision and maintain the network apparatus.

53. (Original) The apparatus of claim 52, wherein the provisioning system comprises:

a network provisioning platform (NPP) configured to receive a voice-over-Internet protocol (VOIP) service registration for the calling party, to generate at least one order for the calling party's VOIP service, to store the at least one order for the calling party's VOIP service, to manage the interaction between a billed telephone number and a calling party's telephone number, and to update a plurality of calling party records to compensate for numbering plan changes;

a billing system coupled to the NPP, wherein the billing system is configured to maintain at least one calling party's account information, to maintain the VOIP service, and to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC); and

a customer service message system (CSMS) coupled to the NPP, wherein the CSMS is configured to synchronize between the first voice-band switch and the database which is configured to store calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

wherein the NPP is further configured to synchronize changes in the network system and the billing system due to calling party activations, disconnections and changes.

54. (Previously Presented) The apparatus of claim 53, wherein the CSMS is further configured to administer in the database at least one of a country code field, a destination telephone number field, and a destination code field.

55. (Previously Presented) An apparatus comprising:

an electronic switching system (ESS) originating assist switch (OAS), the OAS being configured to receive a direct-dialed voice-band call from a calling party's

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telephone number, the direct-dialed voice-band call being associated with a destination telephone number, to determine whether to route the direct-dialed voice-band call over an Internet protocol (IP) network or a circuit-switched network, and, if it is determined to route the direct-dialed voice-band call over the IP network, the OAS is configured to transmit the direct-dialed voice-band call to the IP network, or, if it is determined to continue to route the direct-dialed voice-band call over the circuit-switched network, the OAS is configured to transmit the direct-dialed voice-band call to the circuit switched network; and

an universal subscriber data structure (USDS) coupled to the ESS OAS, the USDS being configured to store service information on a plurality of calling party telephone numbers, to store information on which destination telephone numbers are accessible using a voice-over-Internet protocol (VOIP) service, to receive the calling party's telephone number and the destination telephone number of the direct-dialed voice-band call from the OAS, to determine if the calling party's telephone number is registered for the VOIP service, and, if the calling party's telephone number is registered for the VOIP service, to determine if the destination telephone number is accessible using the VOIP service, and to return a partial routing instruction and service information to the OAS.

56. (Original) The apparatus of claim 55 further comprising:

an ESS handoff assist switch (HAS) coupled to the OAS, wherein the HAS is configured to receive the direct-dialed voice-band call and to route the direct-dialed voice-band call to the VOIP network if the calling party's telephone number is registered for the VOIP service.

57. (Original) The apparatus of claim 55 further comprising:

a provisioning system configured to automatically provision and maintain the network apparatus.

58. (Original) The apparatus of claim 55 further comprising:

a network provisioning platform (NPP) configured to receive a voice-over-Internet protocol (VOIP) service registration for the calling party, to generate at least one order for the calling party's VOIP service, to store the at least one order for the calling party's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, to update a plurality of calling party records to compensate for numbering plan changes, and to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

a billing system coupled to the NPP, wherein the billing system is configured to maintain at least one calling party's account information, to maintain the VOIP service, and to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC); and

a customer service message system (CSMS) coupled to the NPP, wherein the CSMS is configured to synchronize between the first voice-band switch and a database configured to store calling party telephone numbers, USOC information and destination number information.

59. (Original) The apparatus of claim 55, wherein the CSMS is further configured to administer a country code field which is stored in the database.

60. (Cancelled)

61. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for the calling party telephone number, to generate at least one order record for [[a]] the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one

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calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC); and

a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes; and

the CSMS component being further configured to administer a country code field which is stored in the database.

62. (Previously Presented) The system of claim 61 further comprising:

a first voice-band switch; and

a database coupled to the first voice-band switch;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call.

63. (Original) The system of claim 62, wherein the first voice-band switch is further configured to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call.

64. (Original) The system of claim 63, wherein the first voice-band switch is an electronic switching system (ESS) originating assist switch (OAS), the database is a universal subscriber data structure (USDS) and the first voice-band switch is communicatively linked to an IP gateway.

65. (Original) The system of claim 62, wherein the first voice-band switch is further configure to open a billing record for the VOIP call.

66. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

　　a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for the [[a]] calling party telephone number, to generate at least one order record for the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

　　a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC);

　　a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

　　a first voice-band switch; and

　　a database coupled to the first voice-band switch;

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the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

the first voice-band switch being configured to <u>receive</u> ~~received~~ a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a voice-over-Internet protocol (VOIP) call;

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call;

the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the database being a universal subscriber data structure (USDS) and the first voice-band switch is communicatively linked to an IP gateway; and

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call as a circuit-switched call if the direct-dialed voice-band call is to be routed as a circuit-switched call.

67. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for <u>the</u> [[a]] calling party telephone number, to generate at least one order record for the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, <u>a</u> terminating access ID and <u>a</u> calling plan uniform service order code (USOC);

a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

a first voice-band switch;

a database coupled to the first voice-band switch; ~~and~~

a second voice-band switch coupled to the first voice-band switch, wherein, if the direct-dialed voice-band call is being routed as a VOIP call, the second voice-band switch is configured to receive the direct-dialed voice-band call from the first voice-band switch, open a billing record for the VOIP call, and to forward the direct-dialed voice-band call for transmission as a VOIP call;

the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a VOIP call;

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call; and

the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the database being a universal subscriber data structure (USDS) and the first voice-band switch is communicatively linked to an IP gateway.

68. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for the [[a]] calling party telephone number, to generate at least one order record for the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC);

a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

a first voice-band switch;

a database coupled to the first voice-band switch; and

a provisioning system configured to automatically provision and maintain the network apparatus;

the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a VOIP call; and

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call using the VOIP service when the direct-dialed voice-band call is designated as a VOIP call; and

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the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the database is a universal subscriber data structure (USDS) and the first voice-band switch is communicatively linked to an IP gateway.

69. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for the [[a]] calling party telephone number, to generate at least one order record for the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC);

a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

a first voice-band switch; and

a database coupled to the first voice-band switch;

the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed voice-band call as a VOIP call;

the first voice-band switch being further configured to open a billing record for the VOIP call; and

the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the second voice-band switch being an ESS handoff assist switch (HAS) and the database being a universal subscriber data structure (USDS).

70. (Currently amended) A system for automatically provisioning and maintaining a network system for routing direct-dialed voice-band calls from a calling party telephone number over an Internet protocol (IP) network, the system comprising:

a network provisioning component configured to receive a voice-over-Internet protocol (VOIP) service registration for the [[a]] calling party telephone number, to generate at least one order record for the calling party telephone number's VOIP service, to store the at least one order record for the calling party telephone number's VOIP service, to manage the billing interaction for a billed account between at least one calling party telephone number and a billed telephone number, and to update the at least one order record to compensate for numbering plan changes;

a billing system component coupled to the network provisioning component, the billing system component being configured to maintain at least one calling party's account information, to maintain the VOIP service, to create bills based on usage, a terminating access ID and a calling plan uniform service order code (USOC);

a customer service message system (CSMS) component coupled to the network provisioning component, the CSMS component being configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between at least one telecommunications switch and a database, which stores calling party telephone numbers that are registered for the VOIP service, USOC information and destination number information;

a first voice-band switch; and

a database coupled to the first voice-band switch;

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the network provisioning component being further configured to synchronize changes made to the stored at least one order record for the calling party telephone number's VOIP service, between the network system and a billing system, due to calling party activations, disconnections and changes;

the first voice-band switch being configured to receive a direct-dialed voice-band call from a calling party's telephone number and to automatically designate the direct-dialed-voice-band call as a VOIP call;

the first voice-band switch being further configured to open a billing record for the VOIP call; and

the first voice-band switch being further configured to automatically route the direct-dialed voice-band call as a circuit switched call if the direct-dialed voice-band call is to be routed as a circuit switched call.